IN THE CLAIMS

Please amend the following claims which are pending in the present application:

1. (Currently amended) A cooling device for removing heat from an integrated circuit, said cooling device comprising:

a conduit;

a flexible channel to alternate between a compressed position and an extended position and having a first open end and a second closed end, said first open end coupled with said conduit, said open end having an internal width, said flexible channel comprised of a resilient material having spring-like characteristics, said material to provide a spring-like restoring force when compressed, the second closed end comprising a thermally conductive material attached to said flexible channel, said thermally conductive material having a substantially planar surface to interface directly with said integrated circuit when said flexible channel is extended and to detach from said integrated circuit in said compressed position, said flexible channel being conformable with an integrated circuit disposed at an angle relative to the first open end;

an interconnect mechanism between said conduit and said flexible channel to allow a fluid introduced within said conduit to move between said conduit and said flexible channel; and

a heat sink attached to an interior surface of said closed end in the compressed position and in the extended position to cause heat absorbed by said closed end to be conducted through said conduit and said flexible channel wherein said heat sink comprises a plurality of spaced apart planar fins wherein a portion of said spaced apart planar fins extends into said conduit in said extended position, the planar fins being perpendicular to a flow of the fluid through the conduit.

2. (Original) A cooling device as in Claim 1, wherein said interconnect mechanism is an opening in a surface of said conduit.

3. (Original) A cooling device as in Claim 1, wherein said opening has a width equal to said internal width of said open end.

4. (Original) A cooling device as in Claim 1, wherein said open end is coupled with said conduit by a technique selected from the group consisting of soldering, sautering, welding, and adhering.

5. (Previously presented) A cooling device as in Claim 4, wherein said flexible channel, including said closed end, is sealed, and further comprising:

a port for coupling to a pump coupled to said conduit configured to reduce a pressure in said conduit and said flexible channel to compress said flexible channel and to remove said conductive material from said integrated circuit.

6. (Canceled)

7. (Previously presented) A cooling device as in Claim 1, wherein said thermally conductive material is copper.

8. (Canceled)

9. (Previously presented) A cooling device as in Claim 1, wherein said resilient material comprises a material selected from the group of which phosphor bronze and beryllium copper are members.

10. (Original) A cooling device as in Claim 1, wherein said resilient material is pleated.

11. (Original) A cooling device as in Claim 1, wherein said flexible channel is in a compressed state.

12. (Original) A cooling device as in Claim 11, further comprising:

a vacuum pressure within said conduit and said flexible channel.

13. (Original) A cooling device as in Claim 11, wherein a pressure within said flexible channel is less than 1.0 atmosphere.

14. (Canceled)

15. (Previously Presented) A cooling device as in Claim 11, wherein said fluid is within said flexible channel.

16. (Original) A cooling device as in Claim 1, wherein said flexible channel is in an extended state.

17. (Original) A cooling device as in Claim 16, wherein a pressure within said extended flexible channel approximately equals 1.0 atmosphere.

18. (Original) A cooling device as in Claim 16, wherein a pressure within said extended flexible channel is not a vacuum pressure.

19. (Previously presented) A cooling device as in Claim 18, wherein said fluid is contained within said conduit and said flexible channel.

20. (Previously presented) A cooling device as in Claim 19, wherein said fluid is heated.

21. (Previously presented) A cooling device as in Claim 19, wherein said fluid is cooled.

22. (Previously presented) A cooling device as in Claim 19, wherein said closed end contacts said integrated circuit and wherein heat from said integrated circuit is dissipated by said fluid contained within said conduit and said flexible channel.

23. (Previously presented) A cooling device as in Claim 19, further comprising:

a plurality of flow diverters attached within said conduit to create turbulence in said fluid.

24. (Canceled)

25. (Original) A cooling device as in Claim 1, wherein said flexible channel is compressed by creating a vacuum pressure within said flexible channel.

26. (Original) A cooling device as in Claim 1, wherein said flexible channel is compressed by creating a pressure of less than 1.0 atmosphere within said flexible channel.

27. (Original) A cooling device as in Claim 1, wherein said flexible channel is extended by equalizing a vacuum pressure within said flexible channel to approximately equal 1.0 atmosphere.

28. (Original) A cooling device as in Claim 1, wherein said flexible channel is extended by creating a pressure approximately equal to 1.0 atmosphere within said flexible channel.

29-31. (Canceled)

32. (Original) A cooling device as in Claim 1 wherein said conduit is a heat pipe.

33. (Previously presented) A cooling device as in Claim 32, further comprising:

wicking material contained within said heat pipe; and

a reservoir coupled with said heat pipe, said reservoir to contain said fluid.

34. (Original) A cooling device as in Claim 33, wherein said fluid is contained within said heat pipe.

35. (Previously presented) A cooling device as in Claim 33, wherein a gas is contained within said heat pipe.

36 – 41. (Canceled)

42. (Currently amended) A cooling device for removing heat from an electronic or electrical device, said cooling device comprising:

means for extending a flexible channel until a closed end of said flexible channel contacts an electronic or electrical device, said closed end comprising a thermally conductive material having a substantially planar surface to interface directly with said electronic or electrical device when said flexible channel is in an extended position and to detach from said electronic or electrical device in an compressed position, and a heat sink attached to an interior surface of said closed end in the compressed position and in the extended position to cause heat absorbed by said closed end to be conducted through a conduit attached to said flexible channel and said flexible channel, said flexible channel being conformable with an integrated circuit disposed at an angle relative to an open end of the flexible channel; ~~and~~

means for contracting said flexible channel to remove said closed end from said electronic or electrical device; and

means for inducing turbulence in the conduit.

43. (Previously presented) A cooling device as in Claim 42, wherein said means for extending said flexible channel further comprises:

means for introducing a fluid within said conduit and said flexible channel; and

means for creating a pressure within said flexible channel of approximately 1.0 atmosphere.

44. (Canceled)

45. (Previously presented) A cooling device as in claim 42, wherein said means for compressing said flexible channel further comprises:

means for creating a vacuum pressure within said flexible channel.

46. (Previously presented) A cooling device as in Claim 42, wherein said means for compressing said flexible channel further comprises:

means for creating a pressure of less than 1.0 atmosphere within said flexible channel.

47. (New) A cooling device for removing heat from an integrated circuit, said cooling device comprising:

a conduit, a plurality of flow diverters attached within said conduit to create turbulence in a fluid within the conduit;

a flexible channel to alternate between a compressed position and an extended position and having a first open end and a second closed end, said first open end coupled with said conduit, said open end having an internal width, said flexible channel comprised of a resilient material having spring-like characteristics, said material to provide a spring-like restoring force when compressed, the second closed end comprising a thermally conductive material attached to said flexible channel, said thermally conductive material having a substantially planar surface to interface directly with said integrated circuit when said flexible channel is extended and to detach from said integrated circuit in said compressed position, said flexible channel being conformable with an integrated circuit disposed at an angle relative to the first open end;

an interconnect mechanism between said conduit and said flexible channel to allow the fluid to move between said conduit and said flexible channel; and

a heat sink attached to an interior surface of said closed end in the compressed position and in the extended position to cause heat absorbed by said closed end to be conducted through said conduit and said flexible channel.